

WHAT IS CLAIMED IS:

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1. A lens system, comprising:
 - a lens apparatus including a movable lens and a motor, one of a position and a moving rate of the movable lens being controlled with the motor;
 - a controller connected with the lens apparatus; and
 - a control part mounted in one of the lens apparatus and the controller, wherein the lens system executes a control of the movable lens based on one of a control function provided in the lens apparatus and a control function provided in the controller,
 - wherein the control part obtains contents of a control of the movable lens based on the one of the control functions, and the control part executes the control of the movable lens based on the obtained contents of the control.
 2. The lens system as defined in claim 1, wherein:
 - the control of the movable lens includes a control of a zoom lens;
 - the control function provided in the lens apparatus includes a view angle correction function; and
 - the control function provided in the controller includes at least one of a shot function and a limit function.
 3. The lens system as defined in claim 2, wherein when the zoom lens moves to and stops at a shot position by the control based on the shot function, the control part validates the control based on the view angle correction function.
 4. The lens system as defined in claim 2, wherein the control part executes the control based on the limit function prior to the view angle correction function in a case where the zoom lens moves to an outside of a limit position based on

$\begin{array}{c} \textcircled{\scriptsize\bullet} \\ \vdots \\ \textcircled{\scriptsize\bullet} \end{array}$

5. The lens system as defined in claim 1, wherein when the controls to be executed in the control part are overlapped at the same time, the control part selects one of the controls to execute in accordance with a predetermined selection process.
6. The lens system as defined in claim 5, wherein:
 - the control of the movable lens includes a control of a zoom lens;
 - the control function provided in the lens apparatus includes a view angle correction function; and
 - the control function provided in the controller includes at least one of a shot function and a limit function.
7. The lens system as defined in claim 6, wherein when the zoom lens moves to and stops at a shot position by the control based on the shot function, the control part validates the control based on the view angle correction function.
8. The lens system as defined in claim 6, wherein the control part executes the control based on the limit function prior to the view angle correction function in a case where the zoom lens moves to an outside of a limit position based on the limit function by executing the control based on the view angle correction function.
9. A lens apparatus, comprising:
 - a focus lens;
 - a zoom lens;

a control part which executes a control for moving the zoom lens based on a control signal provided from the controller and executes a control based on a view angle correction function for moving the zoom lens to a position to compensate for a change in a view angle due to moving of the focus lens,

wherein the control part obtains, from the controller, a control signal for moving the zoom lens to a target position set by the controller according to the position signal,

wherein the control part comprises a position signal fixing device which fixes, when executing the control based on the view angle correction function, a value of the position signal outputted from the control part to the controller to a value representing a position of the zoom lens before executing the control based on the view angle correction function.

10. The lens apparatus as defined in claim 9, wherein the position of the zoom lens before executing the control based on the view angle correction function is a position where the zoom lens is stopped by the control based on the control signal provided from the controller.

11. A lens apparatus, comprising:

a focus lens;

a zoom lens

a controller; and

a control part which executes a control for moving the zoom lens based on a control signal provided from the controller and executes a control based on a view angle correction function for moving the zoom lens to a position to

wherein the control part comprises:

a restricting device which restricts a moving range of the zoom lens so that the zoom lens does not move to an outside of the limit position determined by the limit position determining device.

- a focus lens;
- a zoom lens;
- a controller; and

wherein the controller has a limit function for obtaining, from the control part, a position signal representing a position of the zoom lens and for restricting a moving range of the zoom lens so that the zoom lens does not move to an outside of a predetermined limit position based on the position signal, and the controller has a shot function for stopping the zoom lens at a predetermined shot

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a position signal fixing device which fixes, when executing the control based on the view angle correction function by the control part, a value of the position signal outputted from the control part to the controller to a value representing a position of the zoom lens before executing the control based on the view angle correction function;

a limit position determining device which determines the limit position by changing a value of the position signal being outputted from the control part to the controller from a value representing an actual position of the zoom lens and detecting a change of the control signal outputted from the controller with respect to the changed value of the position signal; and

a restricting device which restricts a moving range of the zoom lens so that the zoom lens does not move to an outside of the limit position determined by the limit position determining device.

13. The lens apparatus as defined in claim 12, wherein when the control signal provided from the controller changes by at least a predetermined value in a case where the position signal fixing device fixes the position signal, the control part executes a control for moving the zoom lens based on the control signal and the position signal fixing device returns the position signal to a value indicating an actual position of the zoom lens.

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